UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,211	07/11/2003	Gordon I. Russell	T8466109US	3111

7590 05/30/2006

Mark Sajewycz
Gowling Lafleur Henderson LLP
Commerce Court West, Sute 4900
Toronto, ON M5L 1J3
CANADA

EXAMINER	
BELL, BRUCE F	

ART UNIT	PAPER NUMBER
1746	

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/617,211	RUSSELL ET AL.	
	Examiner	Art Unit	
	Bruce F. Bell	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) *7-23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/22/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Yunovich et al (6744265).

Yunovich et al discloses an automated, remote control monitoring system for a cathodic protection system for a buried metallic object based on monitoring multiple coupon test stations, buried next to the metal object being protected, by a central processor, which can individually control multiple cathodic protection rectifiers. The reference for potential measurements is a buried coupon having a metallurgy substantially the same as the metallurgy of the buried object. See abstract. Each test station has at least one buried reference electrode, a polarized coupon switchable into and out of electrical connection with the object and having a metallurgical composition similar to the object, and a voltage detection circuit in electrical connection to and for measuring the potential between, the polarized coupon and the reference electrode. See col. 4, lines 19-24. The central control processing unit analyzed the data and determines the adequacy, inadequacy and excessiveness of the cathodic protection of

the buried object in the vicinity of each test station. The central computer may also be connected through the telemetering system to one or more of the cathodic protection system rectifiers and be programmed with a control algorithm for controllably adjusting the voltage or current of the cathodic protection system which is applied to effect protection. See col. 4, lines 36-45. A depolarized potential is measured as the voltage between the same two electrodes between which the off potential and the on potential are measured, namely, the native coupon and the polarized coupon. The only difference is that the depolarized potential is measured between these coupons only after the cathodic protection has been disconnected for a sufficient time to permit depolarization if the polarized coupon. The automated measurement of the depolarized potential, the value of the depolarized potential or any change in it is stored directly in data memory. Since the potential measurements are referenced to a native coupon and that native coupon goes through the same varying moisture conditions as the polarized coupon which is subjected to cathodic protection as the buried metal object, measurements are more accurate in the varying moisture conditions so that self regulating updating of the criterion is accomplished. See col. 8, line 45 –55 and col. 9, lines 3-10. The invention allows for continuous adjustment of the cathodic protection criterion to account for both changes in soil conditions as well as variations in the depolarized potential of the polarized, protected coupon which is exposed to the same soil conditions, stray currents and cathodic protection currents as the buried metal object and has a potential which closely represents the polarized potential of the buried metal object. See col. 9, lines 11-18. Using the native coupon as a reference not only

permits advantages of a polarized coupon such as its potential, to be measured without necessitating disconnection of the protected metal object from the cathodic protection system to provide a measurement of the polarized potential of the buried metal object, but also ensured that both the reference coupon and the protected polarized coupon are subjected to the same soil condition as the buried metal object so that the potentials which are measured remains, under these varying conditions, always representative of the polarized potential of a similarly sized defect in the external coating of the buried metal object. See col. 9, lines 19-30. The use of automated cathodic protection system permits the continuous measurement of the polarized potential of the polarized coupon with each measurement being stored in a data buffer so that after a serried of such measurements, the set of measurements are statistically analyzed to obtain a value to use as the polarized potential for the interval over which the samples are taken. The mean and standard deviation of these data points I found and the magnitude of the standard deviation is then added to the mean to obtain a resulting value that is indicative of the adequacy of the protection in the vicinity of each test station and wherein the cathodic protection is adjusted accordingly. See col. 9, lines 54 – col. 10, line 33.

Therefore, the prior art of Yunovich et al anticipates the applicants instant invention as set forth above with respect to the disclosure to Yunovich et al. The recitations in the dependent claims with respect to the cathodic protection agent being a chemical composition having the effect of alkaline conditions at the surface of the metal

structure appears to be inherent in the soil around the buried coupon, since soil is known to be alkaline in nature.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce F. Bell whose telephone number is 571-272-1296. The examiner can normally be reached on Monday-Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BFB
May 19, 2006

Bruce Bell
Bruce F. Bell
Primary Examiner
Art Unit 1746